IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

TEXAS LFP, LLC, Plaintiff, v. TEXAS INSTRUMENTS, INC., Defendant.	CIVIL ACTION NO. 2:21-cv-00221 JURY TRIAL DEMANDED

PLAINTIFF'S COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Texas LFP, LLC ("Texas LFP" or "Plaintiff") files this Complaint for patent infringement against Texas Instruments, Inc., ("Texas Instruments" or "Defendant") and states as follows:

NATURE OF THE ACTION

1. This is a civil action for patent infringement under the patent laws of the United States of America, 35 U.S.C. § 1 *et seq*.

2. Texas LFP is the owner of all right, title, and interest in U.S. Patent No. 8,610,573 (the "'573 Patent" or "the Asserted Patent"), which has been attached as Exhibit A incorporated herein by reference.

3. Defendant Texas Instruments has infringed and continues to infringe one or more claims of the Asserted Patent by making, using, offering to sell, and selling within the United States, including in this District, certain products and services. Texas LFP seeks to recover monetary damages, attorneys' fees, and costs.

THE PARTIES

4. Texas LFP is a Texas limited liability company with a principal place of business at 11616 Harry Hines Boulevard, Dallas, Texas 75229.

5. On information and belief, Texas Instruments is a corporation organized under the laws of the State of Delaware, with its principal place of business at 12500 TI Boulevard, Dallas, Texas 75243.

JURISDICTION AND VENUE

6. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over Defendant because Defendant does continuous and systematic business in this District, including providing infringing products and services to the residents of the Eastern District of Texas that Defendant knew would be used within this District, and by soliciting business from the residents of the Eastern District of Texas. For example, Defendant is subject to personal jurisdiction in this Court, *inter alia*, because Defendant has a regular and established place of business in the District at 6412 US-75, Sherman, Texas 75090. Defendant directly, and through agents, regularly does, solicits, and transacts business in the Eastern District of Texas.

8. Defendant continues to make, use, market, distribute, offer for sale, sell, and/or import infringing products, and perform infringing methods, in the State of Texas and in the Eastern District of Texas. Accordingly, Defendant has in the past engaged, and continues to engage, in infringing conduct within and directed to or from this District. Additionally, Defendant has purposefully and voluntarily placed its infringing products into the stream of commerce with

the expectation that its infringing products will be used in this District. The infringing products have been and continue to be distributed to and used in this District. Upon information and belief, the infringing products have been and continue to be distributed from this District. Defendant's acts have caused, and continue to cause, injury to Plaintiff, including within this District.

9. Venue is proper in this District under the provisions of 28 U.S.C. §§ 1391 and 1400(b) at least because Defendant has committed acts of infringement in this District and has a regular and established place of business in this District at 6412 US-75, Sherman, Texas 75090.

BACKGROUND

10. Texas LFP is a family-owned entity that wholly owns and operates Rochester Gauges, Inc. ("Rochester Gauges"). Rochester Gauges manufactures and sells liquid level gauges that are used in a wide variety of industries and applications including, but not limited to, agricultural, aircraft, automotive, industrial, marine, locomotive, refrigeration, and others (*see*, *e.g.*, http://www.rochestergauges.com/pages/products.html). The history of Rochester Gauges dates back to 1913 in Rochester, New York, when the company (then known as Rochester Manufacturing) manufactured its first liquid level gauge. In 1958, Gas Equipment Co., Inc., a distributor for Rochester Manufacturing, purchased Rochester Manufacturing's propane gauge line, moved the company to Dallas, Texas, and renamed the company Rochester Gauges. After experiencing great success with the propane gauge line, Rochester Gauges expanded and acquired the remaining product lines from Rochester Manufacturing. Today, Rochester Gauges is a multi-national company headquartered in Dallas, Texas, with manufacturing facilities in Dallas, Texas; Mexico City, Mexico; Brussels, Belgium; and Wuxi, China.

11. Before Texas Instruments developed the asserted products, Armen Kazanchian, the named inventor of the Asserted Patent, sought to address the interference issues between RF

devices on the 2.4 GHz frequency band. Texas LFP invested financially in Mr. Kazanchian's research and development. In response, Mr. Kazanchian created a novel energy efficient wireless module that could transmit and receive data while substantially reducing or eliminating interference from competing frequency bands. This novel discovery resulted in the Asserted Patent.

U.S. PATENT NO. 8,610,573

12. On December 17, 2013, the United States Patent and Trademark Office duly and legally issued the '573 Patent, entitled "Radio Frequency Module and Methods of Transmitting/Receiving Data" after a full and fair examination.

13. Exhibit A is a true and correct copy of the '573 Patent.

14. The '573 Patent is valid and enforceable under United States patent laws.

15. Plaintiff is the owner of the '573 Patent, having received all rights, title, and interest in and to the '573 Patent from the previous assignee of record.

16. Plaintiff possesses all rights of recovery under the '573 Patent, including the exclusive right to recover for past infringement.

THE ASSERTED PATENT

17. The claims of the Asserted Patent are directed to a patent-eligible, non-abstract invention.

18. The Asserted Patent addresses, among other things, a specific technological improvements of prior art modules. For example, the wireless module as described in the Asserted Patent can operate at the 2.4 GHz frequency band, below the 2.4 GHz band, or above the 2.4 GHz band. As such, the wireless module can be incorporated into final products to provide: i) point to point, ii) point to multipoint, and/or iii) multipoint to multipoint digital wireless communications.

The Asserted Patent can be adapted for use with multiple types of wireless devices where the wireless transmission and/or reception of signals is desired including, but not limited to, active RFID, long range RFID, remote control, light controls, home automation, alarm security, keyless entry, perimeter monitoring, PC keyboard security, wireless keyboard, wireless mouse, TV remote, home stereo remote, asset tracking, wireless PTT, remote switches, remote terminals, wireless RS-232 (DB9) adapters, RS-485 wireless bridges, temperature control, HVAC, meter reading, data acquisition, inventory control, key fob remotes, industrial controls, vending machines, and so on. *See*, *e.g.*, Ex. A '573 Patent at 3:48–61. The structural configuration of the components of the wireless module optimizes the effectivity of the wireless communication by, for example, reducing energy consumption and substantially reducing or eliminating interference from competing frequency bands.

19. For instance, as shown in Figure 2 and Figure 3, the physical location of the internal components relative to each other are distinct, resulting in minimizing interference and reduced energy transfer during wireless communication of the Asserted Patent. Figure 2, as illustrated below, depicts an isometric partially exploded view of the RF module (10):

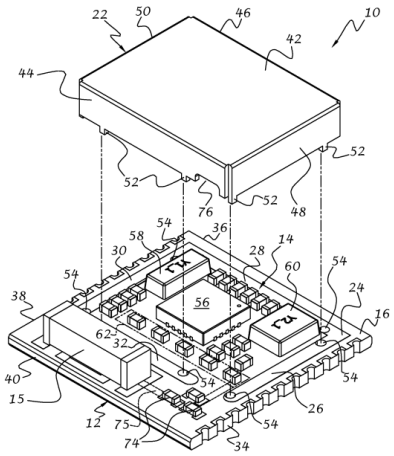


FIG. 2

20. Figure. 3 depicts a top view of RF module (10), absent the radio frequency shield (22), which exhibits the arrangement of the components of the transceiver assembly (14) relative to the antenna (15).

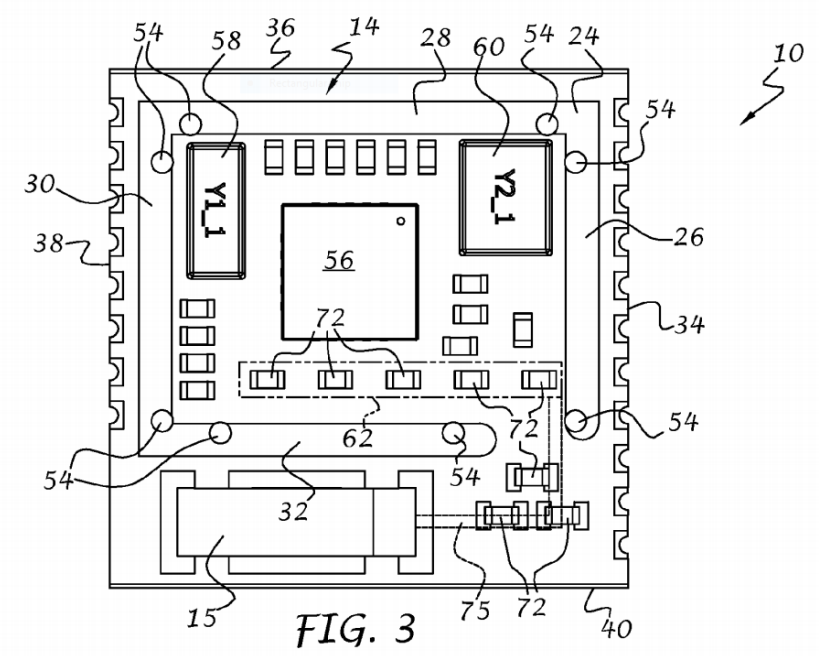


FIG. 3

21. The chip antenna 15 is located close to the RF shield (22) and is generally parallel with the front wall 44 of the shield and the RF matching/filtering network (62). With this arrangement, the antenna (15) together with the matching/filtering network (62) and feed point form a U-shape.

22. The Asserted Patent states that this novel "configuration results in a good antenna pattern and thus improved range performance of the RF module (10)." *See*, *e.g.*, *id*. at 5:18-20 The Asserted Patent further describes this novel configuration as an "improvement over prior art configurations where the antenna is required to be in line with the matching network, resulting in a module that is at least twice the size." *Id*. at 5:21-23.

23. The wireless module disclosed in the Asserted Patent can function and operate at half the size of prior art modules. Further, the novel shield configuration allows for the disclosed

wireless module to have an effective antenna pattern without undesirable antenna feedback incident on the RF matching/filtering network (62). *See*, *e.g.*, *id*. at 5:24-28.

TEXAS INSTRUMENTS' INFRINGING PRODUCTS AND ACTIVITIES

24. Defendant provides various wireless modules that target Bluetooth low energy applications, such as through Defendant's SimpleLink device line (the "Accused Products"). Such SimpleLink devices include at least the CC2650MODA wireless module. *See* https://fccid.io/ZAT26M1/Internal-Photos/Internal-Photos-3087550. (last viewed Mar. 15, 2021). Upon information and belief, these SimpleLink devices can be acquired from Texas Instruments directly and through various second-hand online distributors. *See*, *e.g.*, https://www.digikey.com/en/product-highlight/t/texas-instruments/cc2650moda-simplelink-wireless-microcontroller; https://www.mouser.com/new/texas-instruments/ti-cc2650moda-mcu-modules/ (last viewed Mar. 15, 2021).

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 8610573

25. Plaintiff incorporates by reference and re-alleges the foregoing paragraphs of this Complaint as if fully set forth herein.

26. Defendant has directly infringed and continues to infringe at least claim 1 of the '573 Patent in violation of 35 U.S.C. § 271, *et seq*., by making, using, offering for sale, or selling in the United States, and/or importing into the United States, without authority or license, the Accused Products.

27. The Accused Products meet all the limitations of at least claim 1 of the '573 Patent. For example, claim 1 of the '573 Patent recites:

(a) A radio frequency module comprising:

(b) a base member including a printed circuit board having a first surface and a second surface;

(c) a transceiver assembly located on the printed circuit board and including:

(i) a transceiver; and

(ii) a matching/filtering network having first and second ends; the matching/filtering network having a plurality of passive series connected electrical components in a linear arrangement, with the first end thereof electrically connected to the transceiver;

(d) a ground plane formed on the first surface and surrounding at least a substantial portion of the transceiver assembly;

(e) a radio frequency shield electrically coupled to the ground plane and covering at least a substantial portion of the transceiver assembly;

(f) a chip antenna located on the first surface of the printed circuit board outside of the shield and extending generally parallel with the matching/filtering network; and

(g) a radio feed point extending between the chip antenna and the second end of the matching/filtering network, the chip antenna together with the matching/filtering network and the feed point forming a generally U-shape.

28. A non-limiting and exemplary claim chart comparing the representative Accused Product, CC2650MODA, to claim 1 of the '573 Patent is attached hereto as Exhibit B and is incorporated herein as if fully rewritten. This description is based on publicly-available information. Plaintiff reserves the right to modify this description, including, for example, on the basis of information about the Accused Product that it obtains during discovery.

29. As in claim 1 of the '573 Patent, the representative Accused Product, CC2650MODA, comprise a radio frequency module. *See*, *e.g.*, CC2650MODA SimpleLink™ Bluetooth® low energy Wireless MCU Module datasheet (Rev. D).

CC2650MODA SimpleLink™ *Bluetooth*® low energy Wireless MCU Module

1 Device Overview

https://www.ti.com/lit/ds/symlink/cc2650moda.pdf?ts=1615972401763&ref_url=https%253A%252F%252Fwww.ti.com%252Fproduct%252FCC2650MODA (last visited Mar. 15, 2021).

30. As in claim 1 of the '573 Patent, the CC2650MODA comprises a base member including a printed circuit board having a first surface and a second surface:

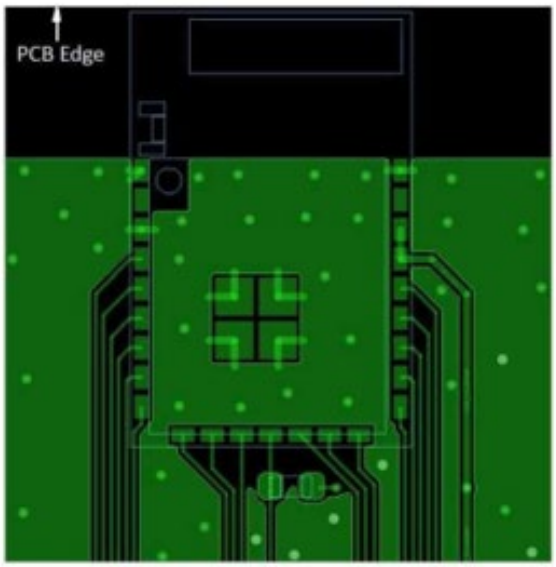


Figure 7-2. Top Layer

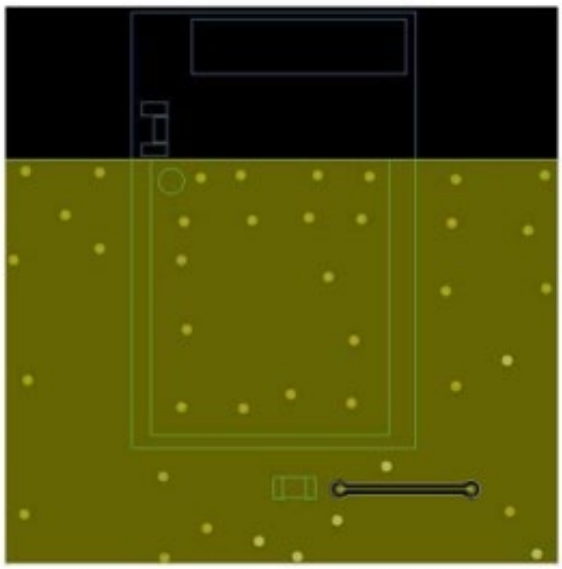
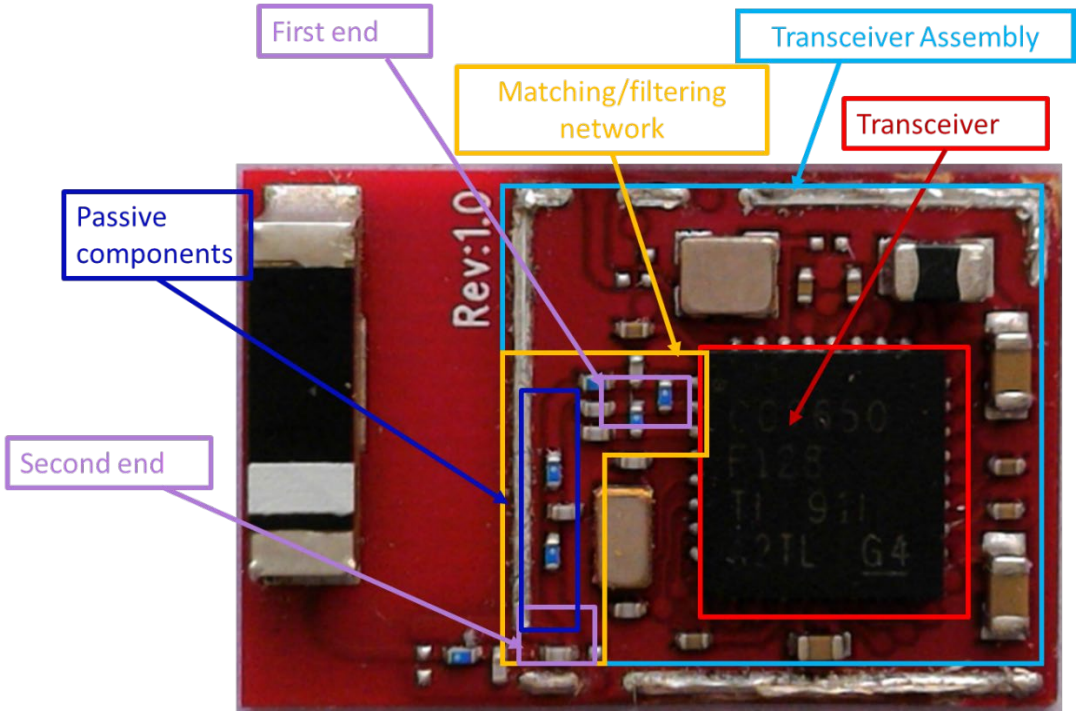


Figure 7-3. Bottom Layer

Id. at pg. 35.

31. As in claim 1 of the '573 Patent, the CC2650MODA comprises a transceiver assembly located on the printed circuit board and including transceiver and a matching/filtering network having first and second ends. The matching/filtering network of the CC2650MODA has a plurality of passive series connected electrical components in a linear arrangement, with the first end thereof electrically connected to the transceiver:



32. As in claim 1 of the '573 Patent, the CC2650MODA comprises a ground plane formed on the first surface and surrounding at least a substantial portion of the transceiver assembly.

7.2 Layout

7.2.1 *Layout Guidelines*

Use the following guidelines to lay out the CC2650MODA device:

- The module must be placed close to the edge of the PCB.
- TI recommends leaving copper clearance on all PCB layers underneath the antenna area, as shown in Figure 7-2 and Figure 7-3.
- TI recommends using a generous amount of ground vias to stitch together the ground planes on different layers. Several ground vias should be placed close to the exposed ground pads of the module.
- No external decoupling is required.
- The reset line should have an external pullup resistor unless the line is actively driven. Placement of this component is not critical.
- TI recommends leaving a clearance in the top-side copper plane underneath the RF test pads.

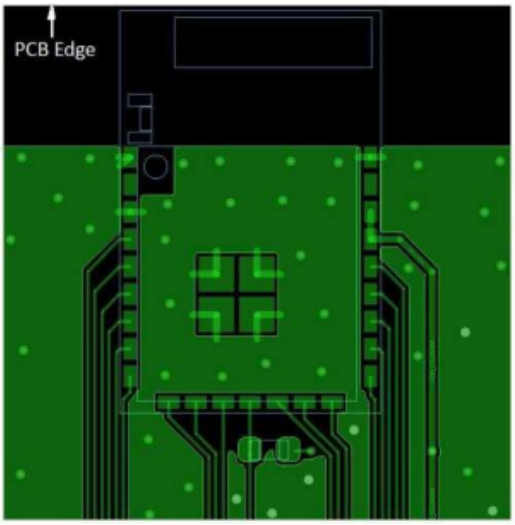


Figure 7-2. Top Layer

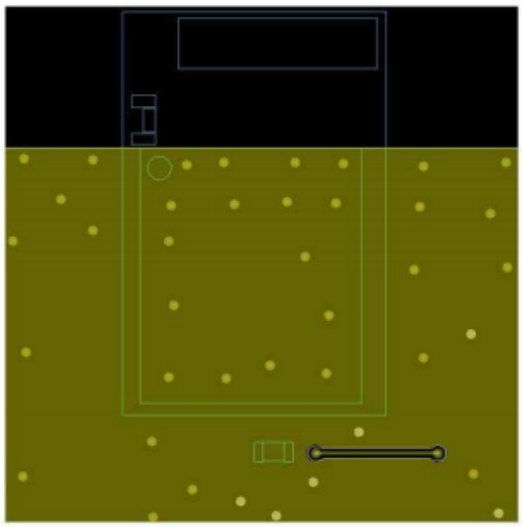
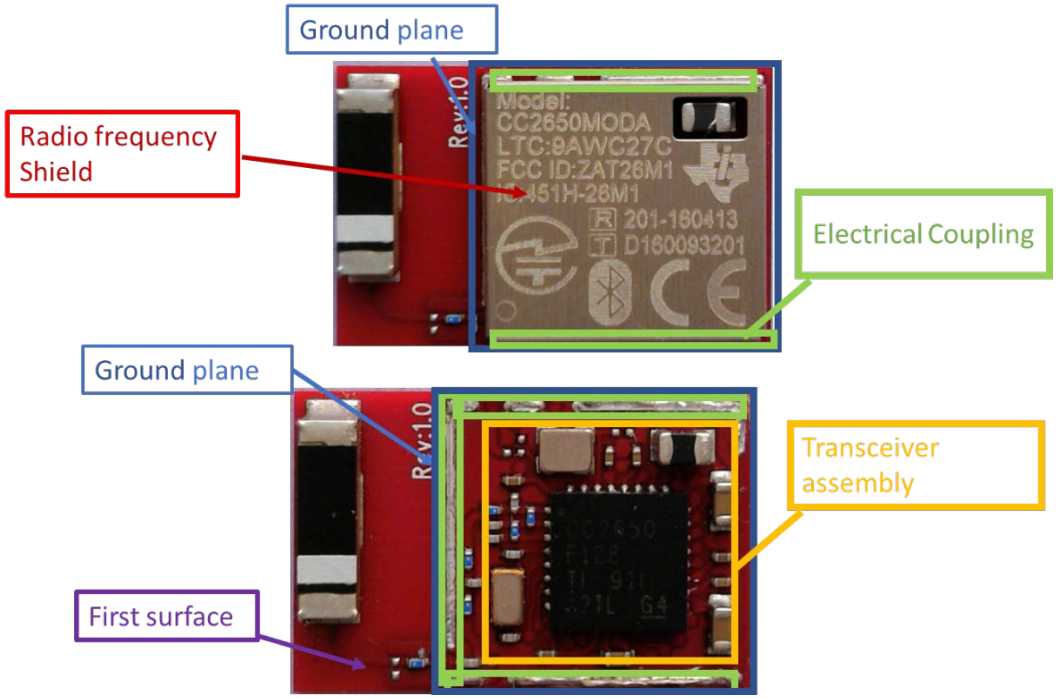


Figure 7-3. Bottom Layer

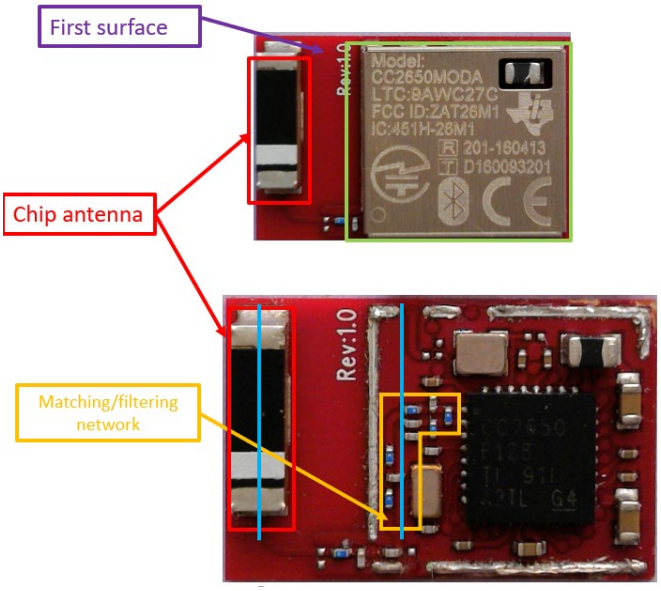
https://www.ti.com/lit/ds/symlink/cc2650moda.pdf?ts=1615972401763&ref_url=https%253A%252F%252Fwww.ti.com%252Fproduct%252FCC2650MODA (last visited Mar. 15, 2021), at pg. 35.

33. As in claim 1 of the ’573 Patent, the CC2650MODA comprises a radio frequency shield electrically coupled to the ground plane and covering at least a substantial portion of the transceiver assembly:



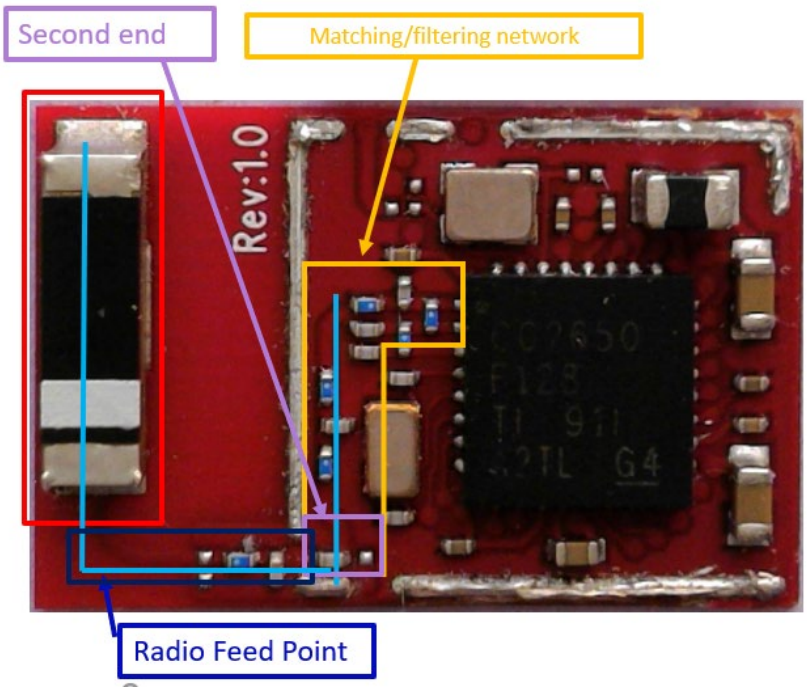
https://www.digikey.com/en/product-highlight/t/texas-instruments/cc2650moda-simplelink-wireless-microcontroller (last viewed March 15, 2021).

34. As in claim 1 of the '573 Patent, the CC2650MODA comprises a chip antenna located on the first surface of the printed circuit board outside of the shield and extending generally parallel with the matching/filtering network:



https://www.digikey.com/en/product-highlight/t/texas-instruments/cc2650moda-simplelink-wireless-microcontroller; https://fccid.io/ZAT26M1/Internal-Photos/Internal-Photos-3087550 (last viewed March 15, 2021).

35. As in claim 1 of the ’573 Patent, the CC2650MODA comprises a radio feed point extending between the chip antenna and the second end of the matching/filtering network, the chip antenna together with the matching/filtering network and the feed point forming a general U-shape:



Id.

36. Defendant makes, uses, sells, and/or offers to sell the Accused Products which practices at least claim 1 of the ’573 Patent and which comprises all of the elements of claim 1 of the ’573 Patent.

37. In violation of 35 U.S.C. § 271, Defendant is now, and has been directly infringing the ‘573 Patent, including through its own use, testing, and selling of the Accused Products.

38. Defendant has had knowledge of infringement of the ’573 Patent at least as of the service of the present Complaint.

39. Defendant has directly infringed and continues to directly infringe at least one claim of the '573 Patent by making, using, offering for sale, and selling the Accused Products without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '573 Patent, Texas LFP has been and continues to be damaged.

40. By engaging in the conduct described herein, Defendant has injured Plaintiff and is thus liable for infringement of the '573 Patent, pursuant to 35 U.S.C. § 271.

41. Defendant has committed these acts of infringement without license or authorization.

42. As a result of Defendant's infringement of the '573 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

43. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim chart that it provides with this Complaint. The claim chart depicted in Exhibit B is intended to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rule of Civil Procedure and does not represent Plaintiff's preliminary or final infringement contentions or preliminary or final claim construction positions.

DEMAND FOR JURY TRIAL

44. Texas LFP demands a trial by jury of any and all causes of action.

PRAYER FOR RELIEF

WHEREFORE, Texas LFP respectfully requests:

a. That Judgment be entered that Defendant has infringed one or more claims of the '573 Patent;

b. An award of damages pursuant to 35 U.S.C. §284, sufficient to compensate Plaintiff for the Defendant's past infringement and any continuing or future infringement;

c. An assessment of pre-judgment and post-judgment interest and costs against Defendant, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;

d. That Defendant be directed to pay enhanced damages, including Plaintiff's attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and

e. That Plaintiff be granted such other and further relief as this Court may deem just and proper.

Dated: June 17, 2021

Respectfully submitted,

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